The Cierva Skeeter made its first free flight less than a month after the S.B.A.C. show at Farnborough, where it was one of the great attractions. Mr. H. A. Marsh is continuing the tests.

CIERVA SKEETER FLIES

First Step Towards Cheaper Helicopters Combines Simplified Components with Orthodox Layout and an Unusual Engine

BASIC principles of rotating-wing flight having been fairly well established, the next step in the evolution of this intriguing mode of locomotion is to reduce the price of helicopters, which at the moment is necessarily high, due to the experimental nature of the machine and the relatively small numbers being built of any given model.

The Cierva Autogiro Co., Ltd., hope with the small two-seater Skeeter shown at Farnborough, to get the price down to below £3,000 if sufficient orders justify production in reasonable quantities. Even this figure may appear high, but it should be remembered that already helicopters costing several times that amount have been found capable of earning their keep by doing certain classes of work far more cheaply than could any other means. It is largely a question of utilization, and in actual operation the Cierva company estimates that the all-in running cost of the Skeeter will be comparable with that of a 20 h.p. motor car.

Reduction in manufacturing costs has not been achieved by departing from what is already becoming normal practice. The main three-bladed rotor shows all the usual features such as flapping and drag hinges, dampers, and collective and cyclic pitch control. It is in the simplification of the individual components of the whole mechanism that the Cierva design team, headed by Mr. C. G. Pullin (who is also managing director), has endeavoured to cheapen quantity production.

"Flight" photograph.

The components of the rotor head of the Skeeter are designed for simplicity in manufacture. The usual flapping and drag hinges are employed, and cyclic and collective pitch controls are orthodox.

The first free flight of the Skeeter shown at Farnborough (G-AJCJ) was made a short time ago by Mr. H. A. Marsh, the firm's test pilot and general manager, at the Airport, Southampton. One of our pictures shows the machine in flight. As the general system is that which Mr. Sikorsky has made classic, there is little reason to expect that the development period will be unduly long.

Figures and Estimates

A few relevant figures will indicate the main characteristics of the W.14 Skeeter. The main rotor has a diameter of 29ft and the overall height is 8ft. With an empty weight of 810 lb and a normal gross weight of 1,210 lb the disposable load is 400 lb. It is estimated that the Skeeter will cruise at about 75 m.p.h., and as the Jameson engine of about 100 h.p. has a very low fuel consumption, the range is quite reasonable. In such a small machine the weight of a passenger is a large item, and this fact is reflected in the still-air ranges (estimated), which are 155 miles with passenger and 270 miles solo.

In its way equally as interesting as the airframe is the Jameson FF 1 flat-four engine which powers the Skeeter. Readers may remember the description of this remarkable engine which we published on May 23rd, 1946. At that time, we devoted considerable space to analysing the design because we evaluated the technical features of the engine as being of extreme importance. We are human enough to take